

WHAT IS CLAIMED IS:

1 1. A display device including a display section for displaying a video signal,
2 comprising:

3 3 an on-screen display generating section for generating a menu matrix having a plurality of
4 menu icons arranged in a plurality of rows and columns on the display section, the plurality of menu
5 icons being individually selectable for enabling a user to adjust a display state of the display section;

6 6 a key inputting section adapted to allow a user to select any desired one of the plurality of
7 menu icons; and

8 8 a control section adapted to control a pointer so that the pointer is initially positioned at a
9 menu icon in the central region of the menu matrix upon the initial display of the menu matrix, the
10 pointer indicating a menu icon selected through the key inputting section.

1 1 2. The display device as set forth in claim 1, wherein said control section controls the
2 2 3 adjustment of the display state of the display section according to an input signal from the key
3 3 4 inputting section.

1 1 3. The display device as set forth in claim 1, wherein the plurality of rows of the menu
2 2 4 matrix includes at least three rows.

1 1 4. The display device as set forth in claim 2, wherein the control section determines the
2 2 4 frequency of use for each of the menu icons selected by a user via the key inputting section, and

3 disposes the menu icon having the highest frequency of use at the central region of the menu matrix
4 where the pointer is initially positioned.

1 5. The display device as set forth in claim 4, wherein the control section disposes the
2 remaining menu icons around the central region of the menu matrix so that those of the menu icons
3 having higher frequencies of use are arranged closer to the central region of the menu matrix than
4 those of the menu icons having lower frequencies of use.

1 6. The display device as set forth in claim 5, wherein the control section disposes the
2 four menu icons having the frequencies of use closest in frequency to the menu icon having the
3 highest frequency of use adjacent to said menu icon having the highest frequency of use in an order
4 of right, top, left and bottom sides of said menu icon having the highest frequency of use.

1 7. The display device as set forth in claim 1, wherein said key inputting section
2 comprises a plurality of directional keys, and each menu icon is reachable from said menu icon in
3 the central region of the menu matrix through a corresponding predetermined number of incremental
4 steps in response to the user's manipulation of said directional keys, those menu icons farthest away,
5 geometrically, from said menu icon in the central region of the menu matrix requiring the most
6 amount of incremental steps to be reached.

1 8. The display device as set forth in claim 7, wherein said control section moves said
2 pointer from one of the rightmost menu icons to a predetermined menu icon requiring one less

3 incremental step than the number of incremental steps corresponding to said one of the rightmost
4 menu icons, when said control section moves the pointer in a right direction from said one of the
5 rightmost menu icons, said predetermined menu icon being disposed on a left side of said menu
6 matrix with respect to said menu icon in the central region of the menu matrix and in a row adjacent,
7 in a downward looped direction, to the row in which said one of the rightmost menu icons was
8 disposed.

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9. The display device as set forth in claim 7, wherein said control section moves said
pointer from one of the leftmost menu icons to a predetermined menu icon requiring one less
incremental step than the number of incremental steps corresponding to said one of the leftmost
menu icons, when said control section moves the pointer in a left direction from said one of the
leftmost menu icons, said predetermined menu icon being disposed on a right side of said menu
matrix with respect to said menu icon in the central region of the menu matrix and in a row adjacent,
in an upward looped direction, to the row in which said one of the leftmost menu icons was disposed.

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10. The display device as set forth in claim 7, wherein said control section moves said
pointer from a top rightmost menu icon to a predetermined menu icon requiring one less incremental
step than the number of incremental steps corresponding to said top rightmost menu icon, when said
control section moves the pointer in a right direction or upward direction from said top rightmost
menu icon, said predetermined menu icon being disposed on a left side of said menu matrix with
respect to said menu icon in the central region of the menu matrix and in a row downwardly adjacent
to the row in which said top rightmost menu icon was disposed.

1 11. The display device as set forth in claim 7, wherein said control section moves said
2 pointer from a bottom rightmost menu icon to a predetermined menu icon requiring one less
3 incremental step than the number of incremental steps corresponding to said bottom rightmost menu
4 icon, when said control section moves the pointer in a right direction or downward direction from
5 said bottom rightmost menu icon, said predetermined menu icon being disposed on a left side of said
6 menu matrix with respect to said menu icon in the central region of the menu matrix and in a top row
of the menu matrix.

1 12. The display device as set forth in claim 7, wherein said control section moves said
2 pointer from a top leftmost menu icon to a predetermined menu icon requiring one less incremental
3 step than the number of incremental steps corresponding to said top leftmost menu icon, when said
4 control section moves the pointer in a left direction or upward direction from said top leftmost menu
5 icon, said predetermined menu icon being disposed on a right side of said menu matrix with respect
6 to said menu icon in the central region of the menu matrix and in a bottom row of the menu matrix.

1 13. The display device as set forth in claim 7, wherein said control section moves said
2 pointer from a bottom leftmost menu icon to a predetermined menu icon requiring one less
3 incremental step than the number of incremental steps corresponding to said bottom leftmost menu
4 icon, when said control section moves the pointer in a left direction or downward direction from said
5 bottom leftmost menu icon, said predetermined menu icon being disposed on a right side of said
6 menu matrix with respect to said menu icon in the central region of the menu matrix and in a row

7 upwardly adjacent to the row in which said bottom leftmost menu icon was disposed.

1 14. An on-screen display controlling method of a display device including a display
2 section for displaying a video signal, comprising the steps of:

3 generating an on-screen display including a menu matrix having a plurality of menu icons
4 arranged in a plurality of rows and columns, said plurality of menu icons being individually
5 selectable for enabling a user to adjust a display state of the display section;

6 generating a pointer for indicating which of said plurality of menu icons is currently selected;
7 and

8 controlling said pointer so that said pointer is initially positioned at a default menu icon in
9 the central region of the menu matrix when said menu matrix is initially displayed.

1 15. The on-screen display controlling method as set forth in claim 14, wherein said menu
2 matrix includes at least three rows.

1 16. The on-screen display controlling method as set forth in claim 15 further comprising
2 the steps of:

3 determining the frequency of use of each of the menu icons selected by a user to adjust a
4 display state; and

5 setting the menu icon having the highest frequency of use as said default menu icon.

1 17. The on-screen display controlling method as set forth in claim 16 further comprising

2 the step of disposing the remaining menu icons around the central region of the menu matrix so that
3 those of the menu icons having higher frequencies of use are arranged closer to the default menu
4 icon than those of the menu icons having lower frequencies of use, such that the four menu icons
5 having the frequencies of use closest in frequency to the frequency of use of the default menu icon
6 are disposed, in order of frequency of use, to be adjacent to said default menu icon in an order of
7 right, top, left and bottom sides of said default menu icon.

18. The on-screen display controlling method as set forth in claim 17 further comprising
1 the step of:

2 selecting one or more of a plurality of directional keys in a key inputting section of said
3 display device to move the pointer from said default menu icon to any of the remaining menu icons
4 in said menu matrix, wherein each said remaining menu icon is reachable from said default menu
5 icon through a corresponding predetermined number of incremental steps in response to the user's
6 manipulation of said directional keys, those menu icons farthest away, geometrically, from said
7 default menu icon requiring the most amount of incremental steps to be reached.

19. The on-screen display controlling method as set forth in claim 18 further comprising
1 the step of:

2 selecting a right directional key in said key inputting section of said display device to move
3 the pointer from one of the rightmost menu icons in a right direction; and
4 controlling said pointer to move from said one of the rightmost menu icons to a
5 predetermined menu icon requiring one less incremental step than the number of incremental steps
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7 corresponding to said one of the rightmost menu icons, in response to the step of selecting a right
8 directional key, said predetermined menu icon being disposed on a left side of said menu matrix with
9 respect to said default menu icon and in a row adjacent, in a downward looped direction, to the row
10 in which said one of the rightmost menu icons was disposed.

1 20. The on-screen display controlling method as set forth in claim 18 further comprising
2 the step of:

3 selecting a left directional key in said key inputting section of said display device to move
4 the pointer from one of the leftmost menu icons in a left direction; and

5 controlling said pointer to move from said one of the leftmost menu icons to a predetermined
6 menu icon requiring one less incremental step than the number of incremental steps corresponding
7 to said one of the leftmost menu icons, in response to the step of selecting a left directional key, said
8 predetermined menu icon being disposed on a right side of said menu matrix with respect to said
9 default menu icon and in a row adjacent, in an upward looped direction, to the row in which said one
10 of the leftmost menu icons was disposed.